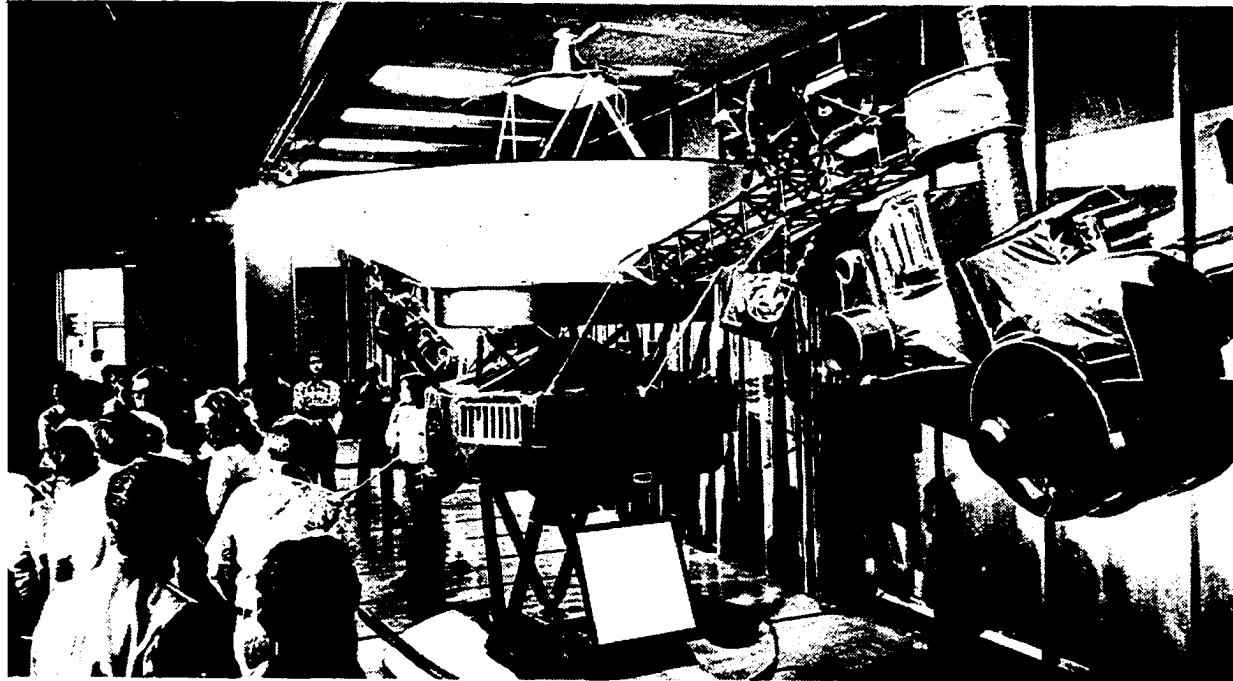


Voyager Spacecraft Carry Messages to 'Out There': Discs, First of ...

Toth, Robert C
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AIMED AT 'SOMEONE' IN SPACE.—Mockup of the *Vovaaer* is shown to visitors at Jet Propulsion Laboratory on eve of space-

craft's Florida blastoff. Top center, a dish antenna; extended arm holds cameras. Craft also will carry records of earth sounds.

Times photo by Michael Mally

Voyager Spacecraft Carry Messages to 'Out There'

Discs, First of Which Will Be Launched Today, Contain Greetings in 60 Tongues, Music, Photos

BY ROBERT C. TOTH
Times Staff Writer

WASHINGTON—An unusual phonograph record will ride on two Voyager spacecraft past Jupiter and Saturn and beyond the solar system into interstellar space, carrying messages from man to anyone "out there."

The first of the Voyagers, identical 1,820-pound planetary probes, is to be launched this morning from Cape Canaveral, Fla. The second launching is scheduled for Sept. 1. Both missions will be controlled from Jet Propulsion Laboratory in Pasadena.

The 12-inch copper phonograph disc, called "Sounds of Earth," was placed on the spacecraft "on the chance that someone is out there," the National Aeronautics and Space Administration said.

It contains greetings in 60 languages, from Aramaic (Christ's tongue) to Vietnamese; sounds of music and animals, from a Brandenburg concerto to the noise of whales, surf and a baby, and a video component with 115 photographs, including a nursing mother, the Taj Mahal and Monument Valley.

The earliest that the Voyager record might be played is about 40,000 years from now, when the craft passes within a light year (6 trillion miles) of the first star it comes to, but more likely it will lie unheard for millions or billions of years.

The odds are overwhelming that the Voyagers, like "bottles in a cosmic ocean," will never reach another planetary system but will be found, if at all, by "advanced spacefaring civilizations," according to Cornell astronomer Carl Sagan.

The recording was conceived by Sagan, who has often theorized about intelligent life beyond earth. Its repertoire was selected by prominent scientists, musicians and educators. Included on the record is a message from President Carter saying in part:

"We cast this message into the cosmos. It is likely to survive billion years into our future, when our civili-

zation is profoundly altered and the surface of the earth may be vastly changed. Of the 200 billion stars in the Milky Way galaxy, some—perhaps many—may have inhabited planets and spacefaring civilizations . . . (that) can understand these recorded contents . . .

"This is a present from a small, distant world, a token of our sounds, our science, our images, our music, our thoughts and our feelings. We are attempting to survive our time so we may live into yours . . . This record represents our hope and our determination, and our goodwill in a vast and awesome universe."

The main Voyager objective is to investigate the giant planet of Jupiter and five of its moons in 1979. Then it will go to the ringed and frigid Saturn and seven of its moons in 1980-81 and possibly the planet Uranus in 1986 before leaving the solar system in 1989, when the spacecraft will cross

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EVE OF LAUNCH -Mission control center at JPL on Friday. It becomes a busy hub early today, taking command of Voyager the moment it leaves the ground in Florida.

Times photo by Michael Mally

FIRST VOYAGER DISC LAUNCHED TODAY

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Pluto's orbit to wander indefinitely among the stars.

The record is in a gold-colored protective jacket attached to the side of the spacecraft. The jacket contains information in scientific language on how the record is to be played, using a cartridge and needle provided.

Of the two-hour playing time, 90 minutes are taken up by music that represents different cultures and eras on earth. Selections include Melanesian pan pipes and "Melancholy Blues" by Louis Armstrong.

Depicted among the photographs and diagrams are mathematics, chemistry, geology and biology of the earth.